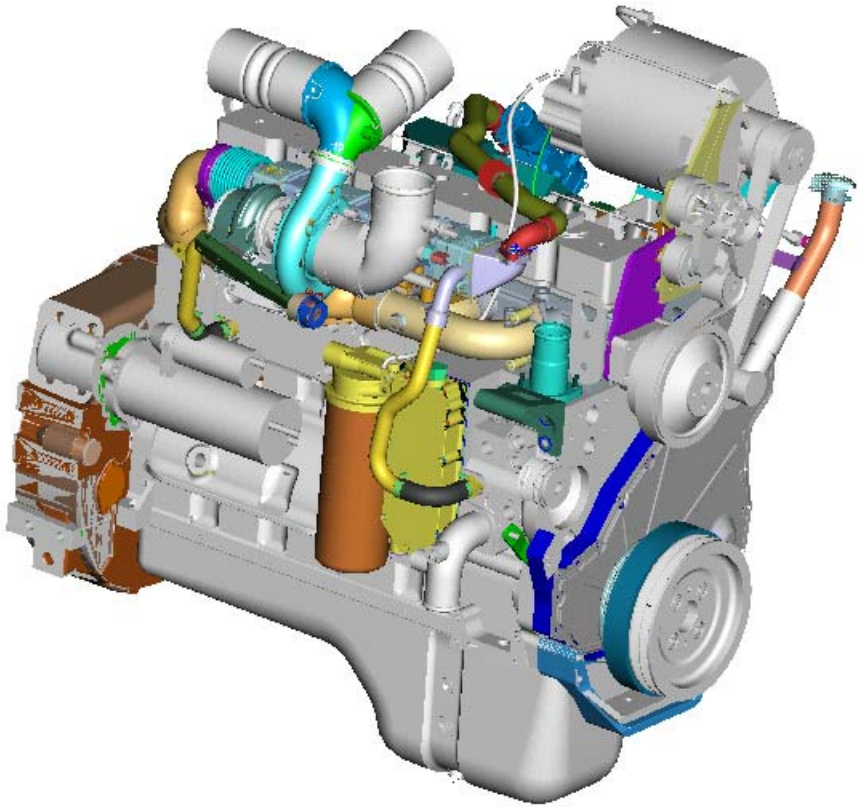
EVERY ALTERNATIVE.

Development of a Cummins Westport SI-EGR Natural Gas Engine at 0.2 g/bhp-hr NOx

August 3, 2005

Dr. Mostafa Kamel



- Low emissions target @ 0.2 g NOx
- High efficiency with combustion enhancements
- 8.9 liter engine with 320 HP top rating and 1000 ft.lb. peak torque

Project Timing

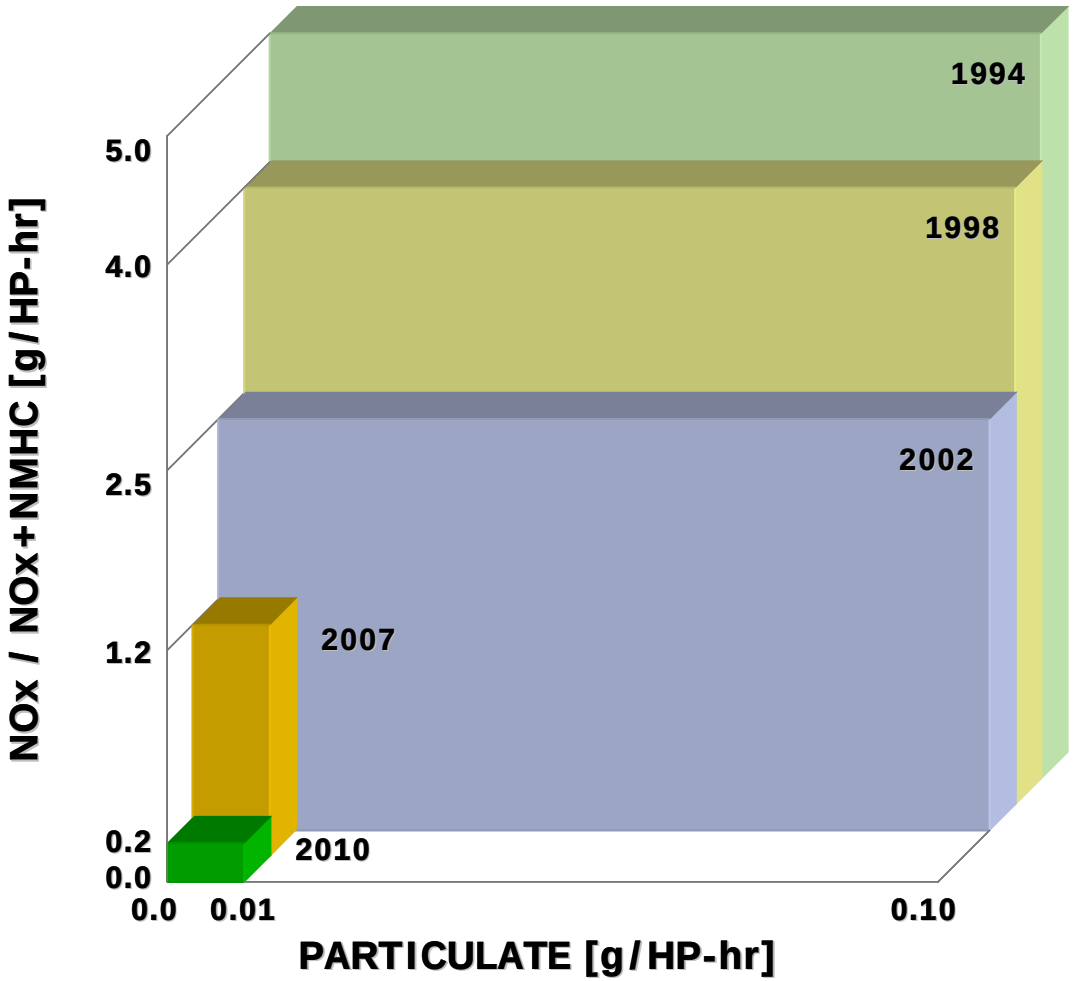
- 30 months project
  - Concept Demonstration
  - Design & Development
  - Design Verification & Validation
  - Product Launch Readiness
  - Reliability Assessment

- Target Launch early ‘07

Target Applications

- Truck and bus
  - Artic Bus
  - Transit Bus
  - Waste Truck

Emissions Legislations



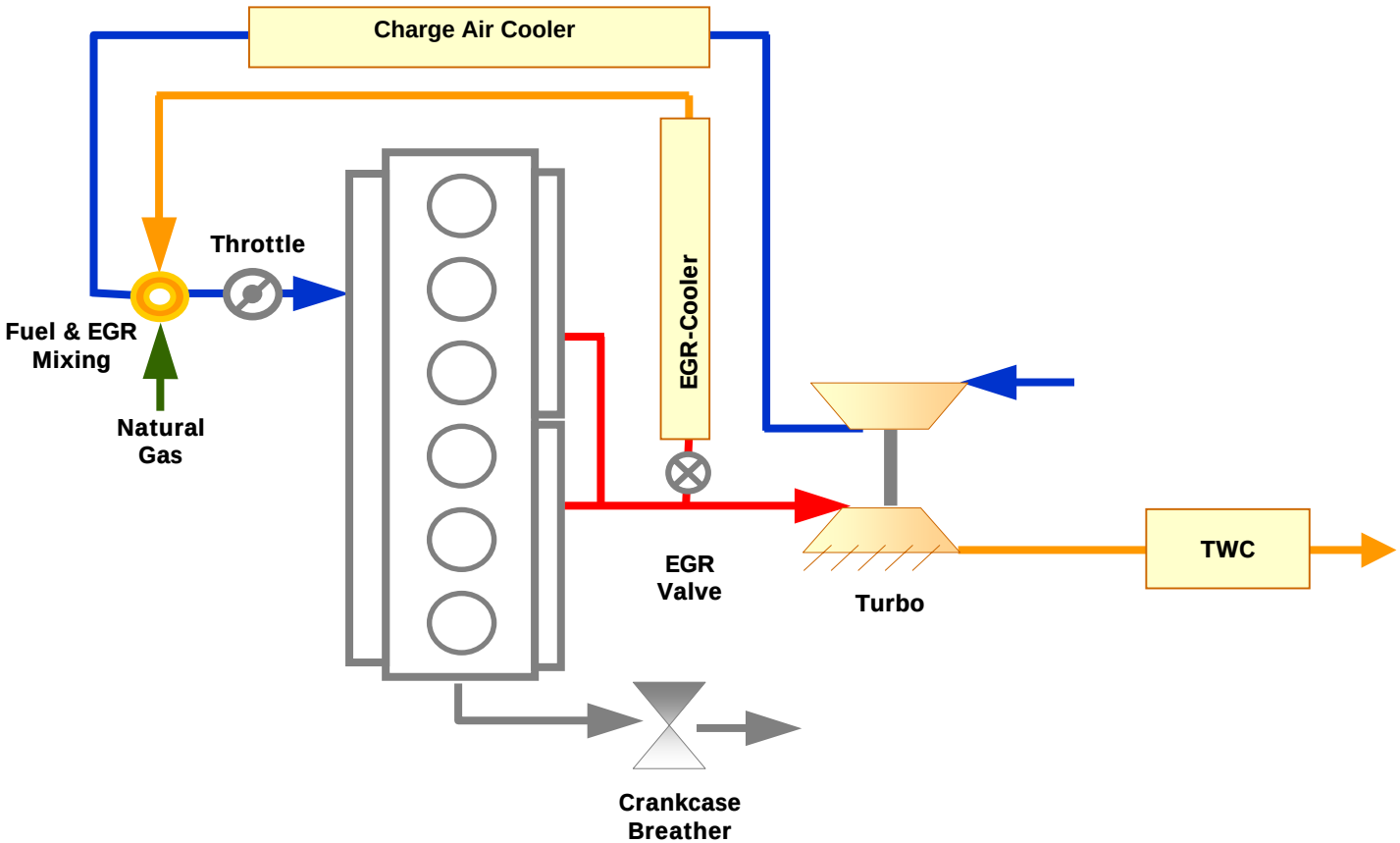
‘07 Technology Development

- Research project underway for past 2 years
  - Demonstrated the technology
  - Demonstrated emissions and efficiency capabilities
  - Identified major areas of development focus

New Technology

- Stoichiometric combustion allows use of 3-way catalyst
  - Can meet EPA 2010 and beyond
  - Proven catalyst technology from passenger car industry
- Cooled EGR
  - High torque
  - High efficiency
  - Reliability/Durability
- Expect the technology to deliver EPA 2010 emissions and competitive LCC against diesel

Engine Schematic



Status

- Concept design completed
- Analysis of all the critical systems and components is underway
  - No major concerns with achieving targets
- Concept engine has demonstrated target rating
- Design and Development underway
- Field test to begin before year end

Engine OEM Availability

- Goal: Match current Transit/Refuse availability
- Transit bids today have 2007 CWI Engines
- Strong refuse truck OEM interest
- OEM engines in Q4 ‘06